

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

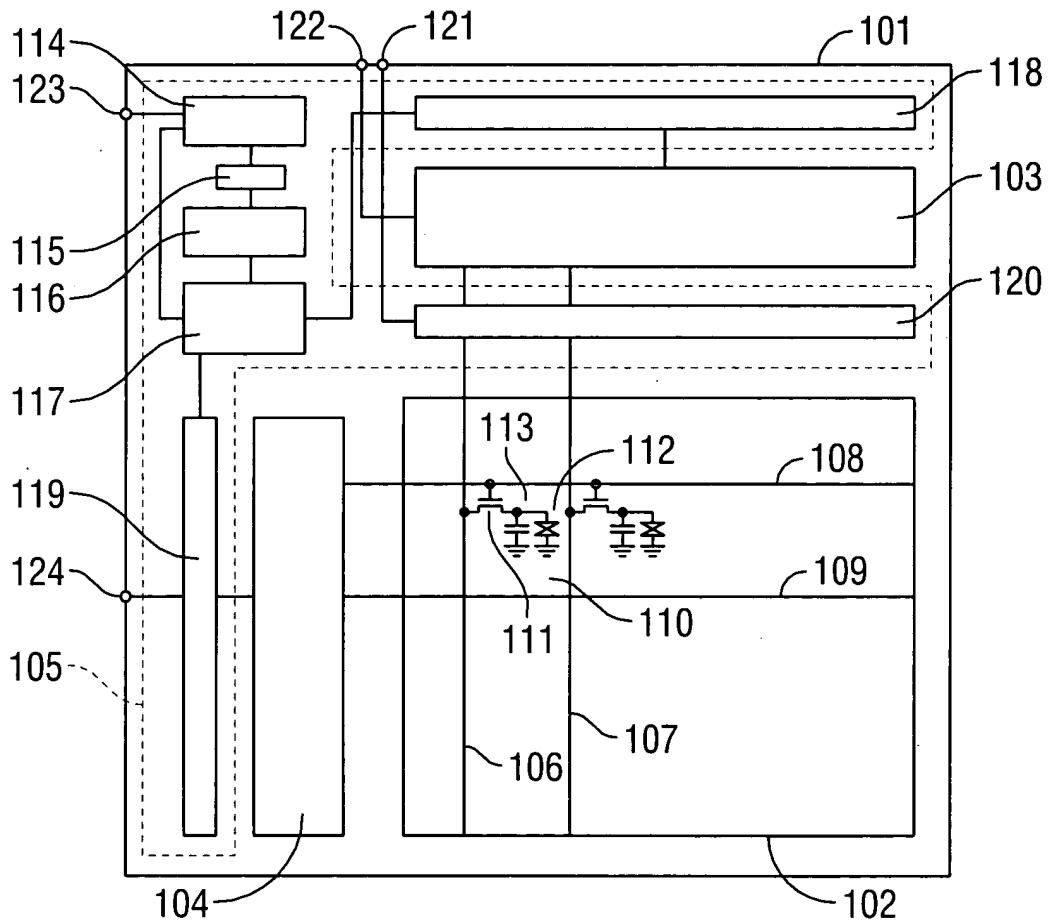


FIG. 1

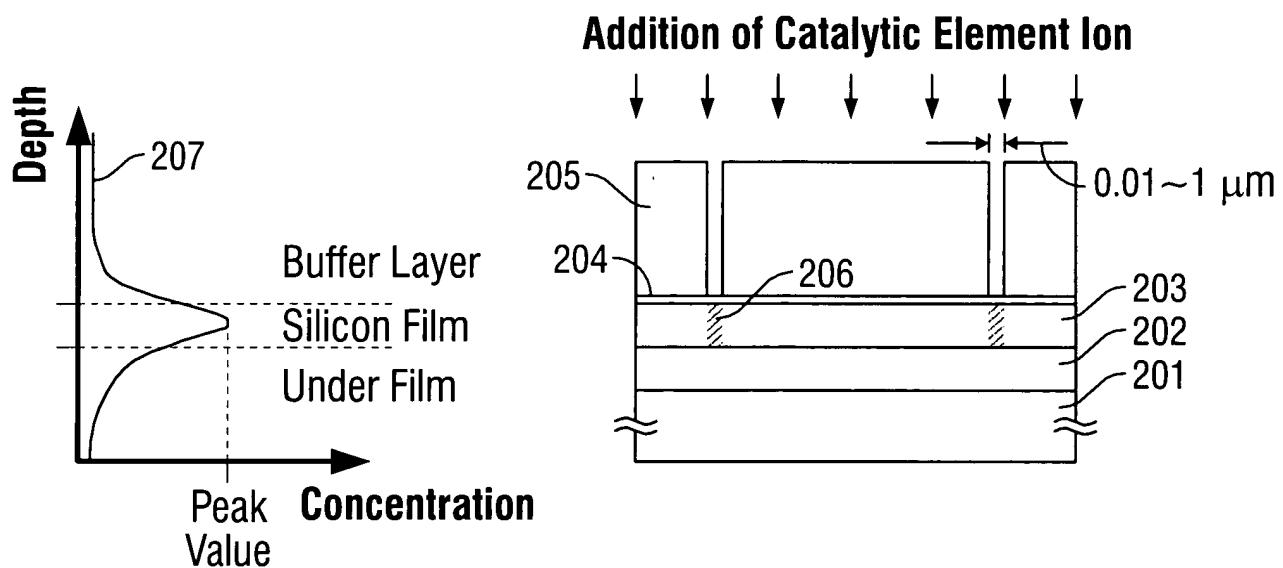


FIG. 2

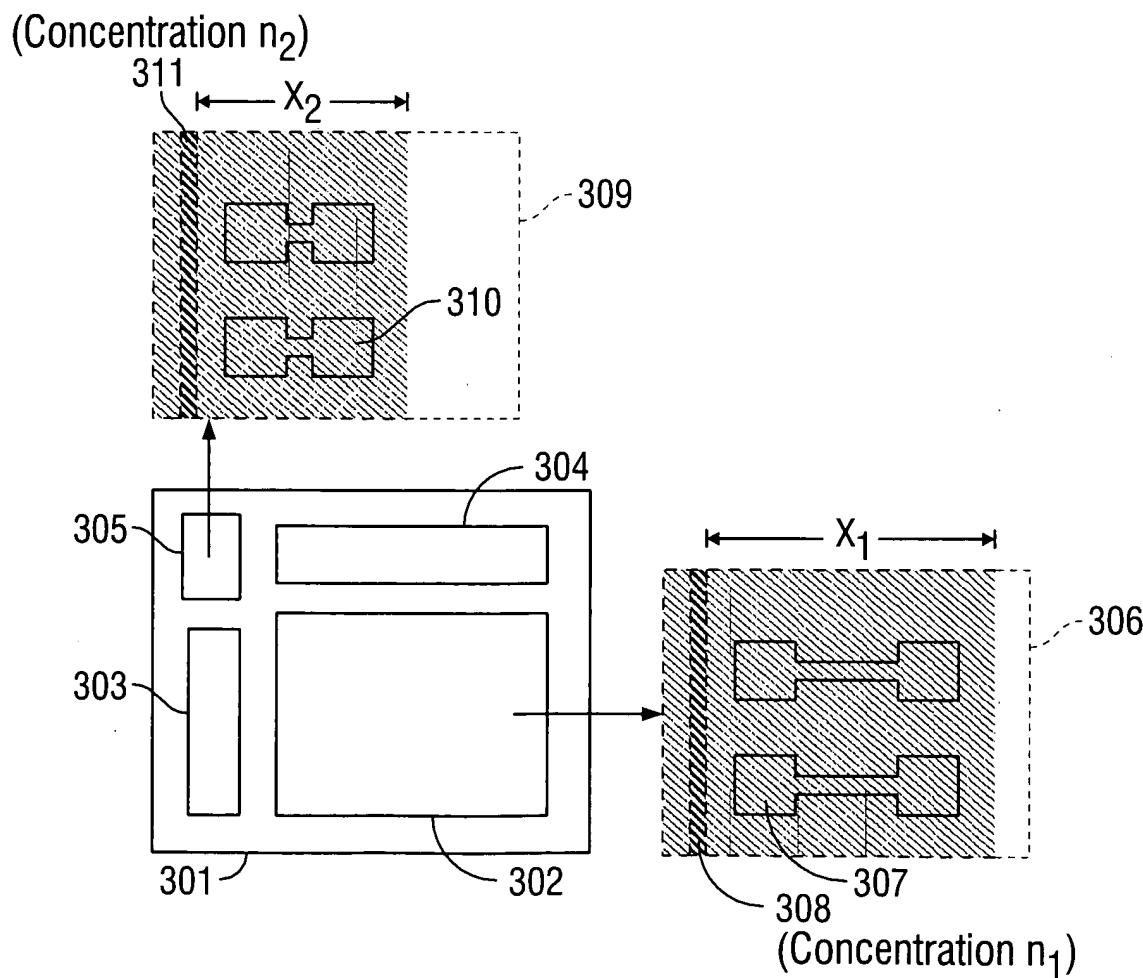
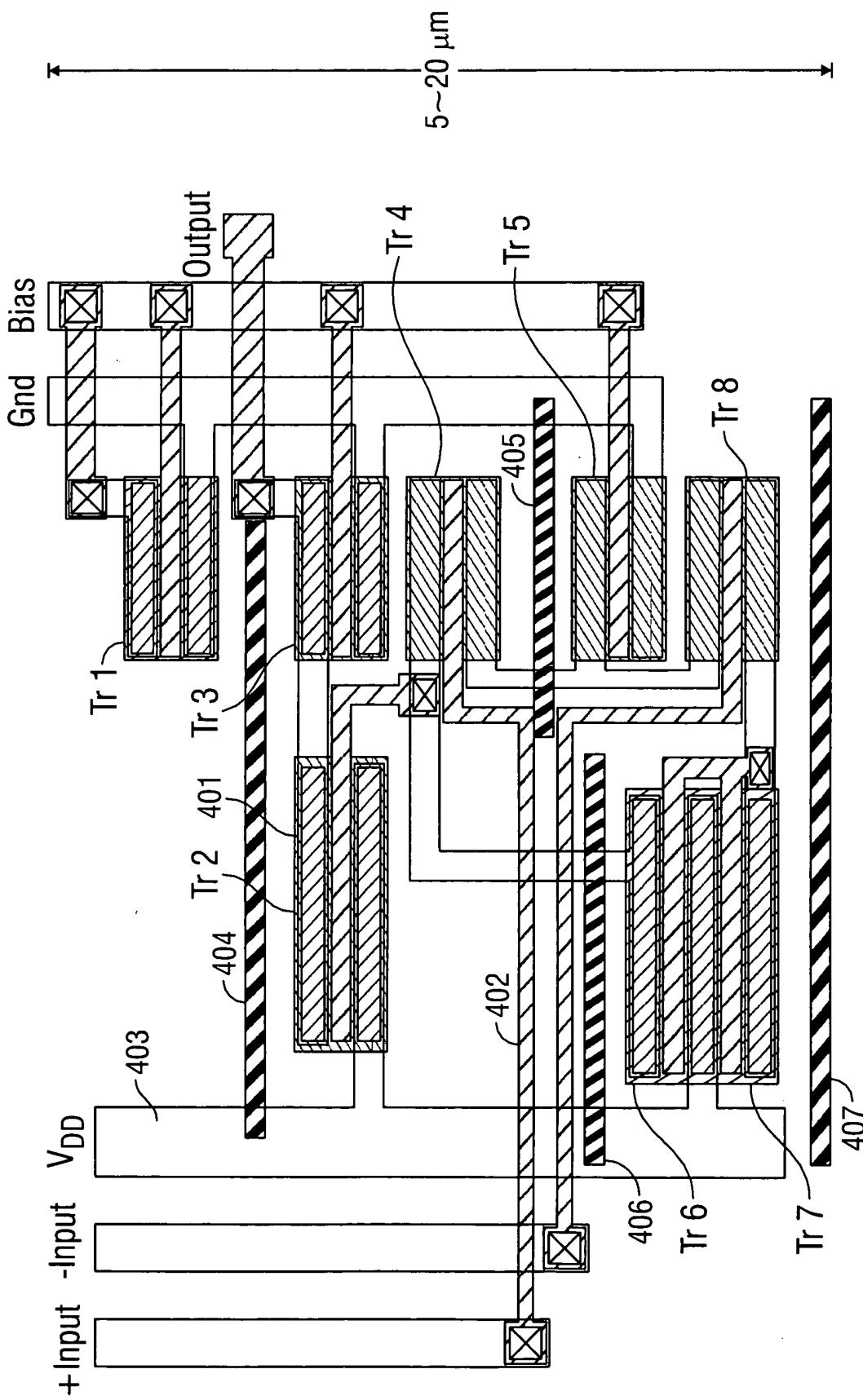


FIG. 3



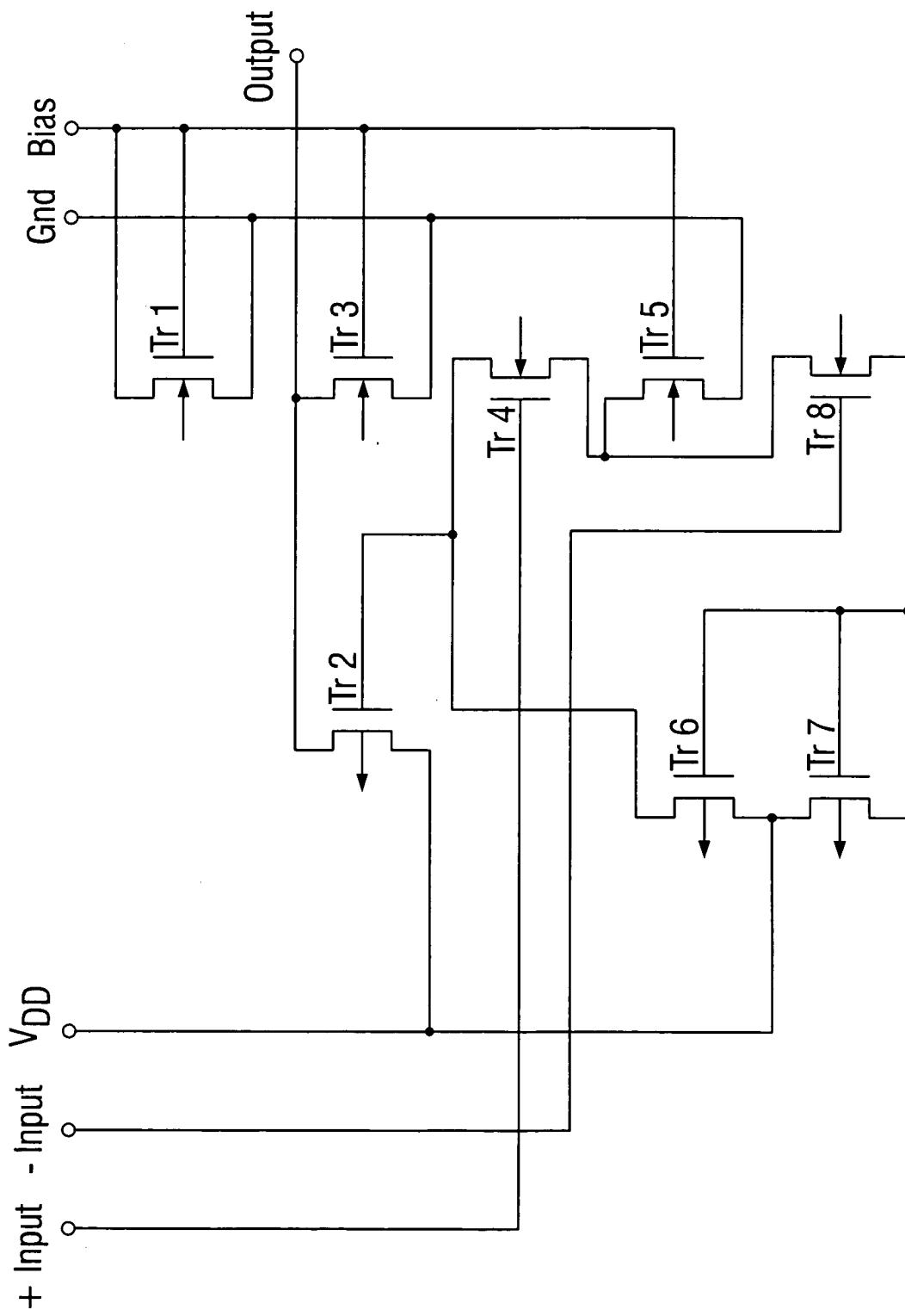


FIG. 4B

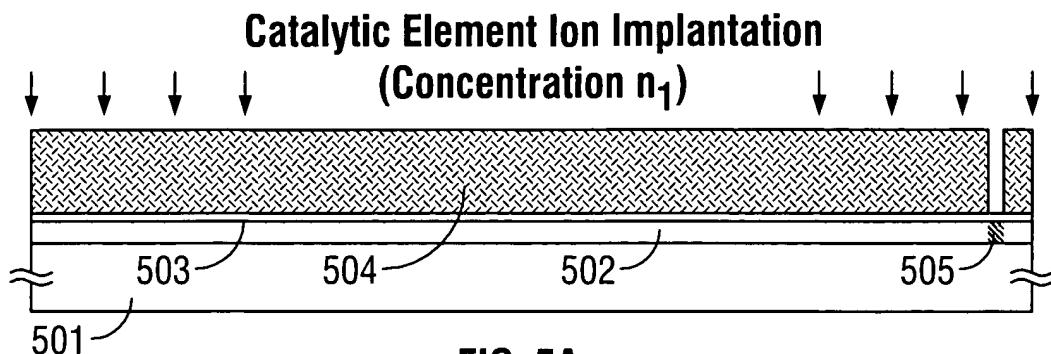


FIG. 5A

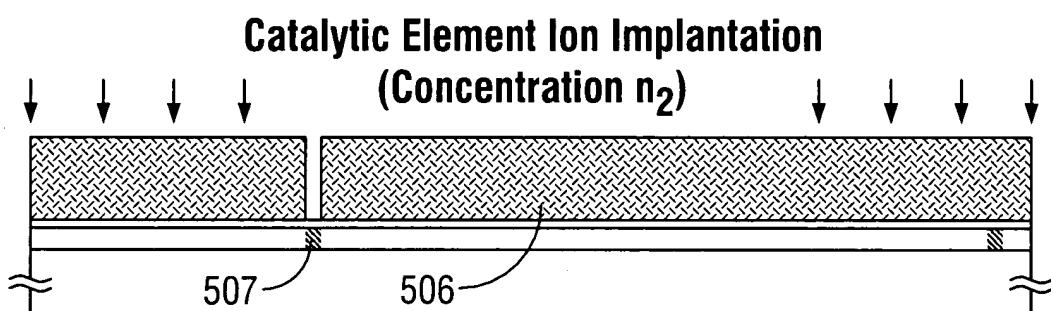


FIG. 5B

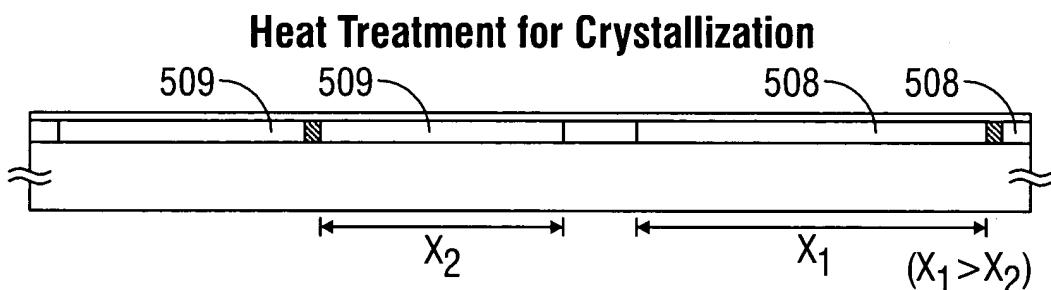


FIG. 5C

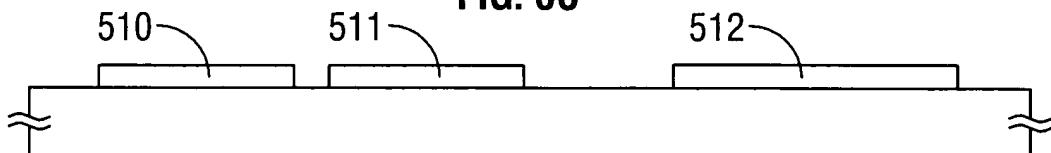


FIG. 5D

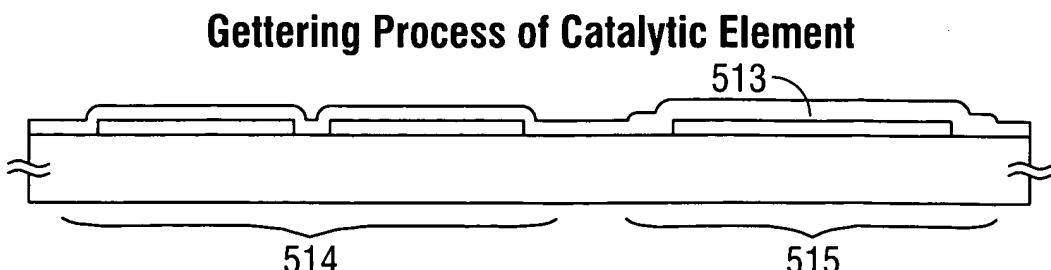


FIG. 5E

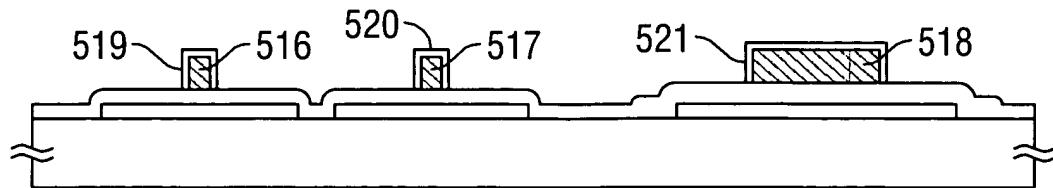


FIG. 6A

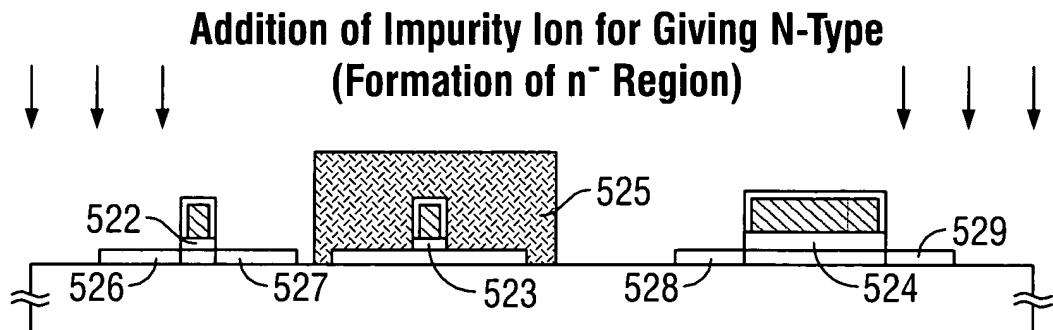


FIG. 6B

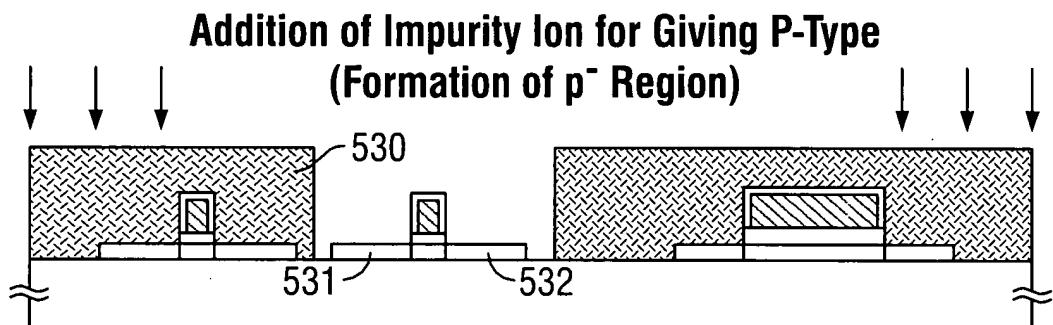


FIG. 6C

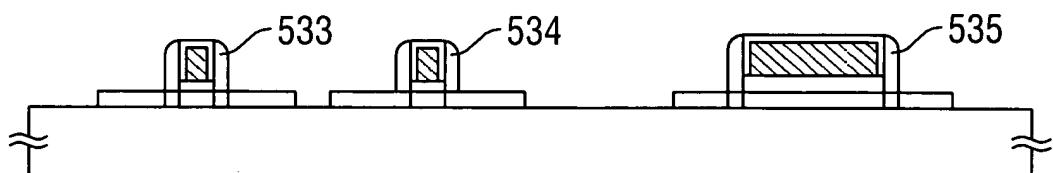


FIG. 6D

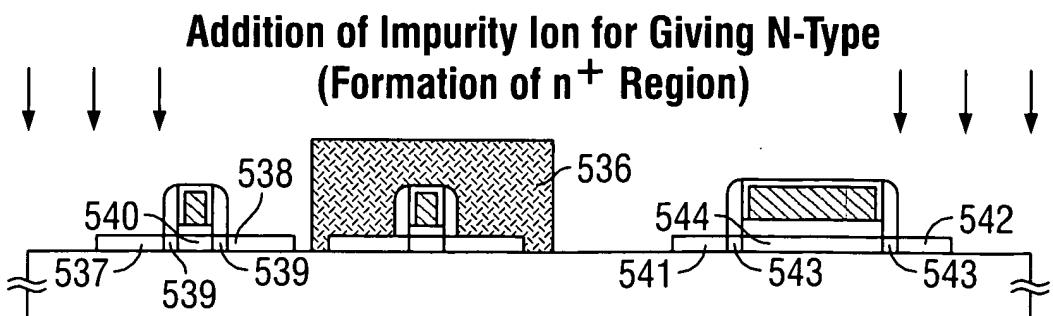


FIG. 6E

### Addition of Impurity Ion for Giving P-Type (Formation of p<sup>+</sup> Region)

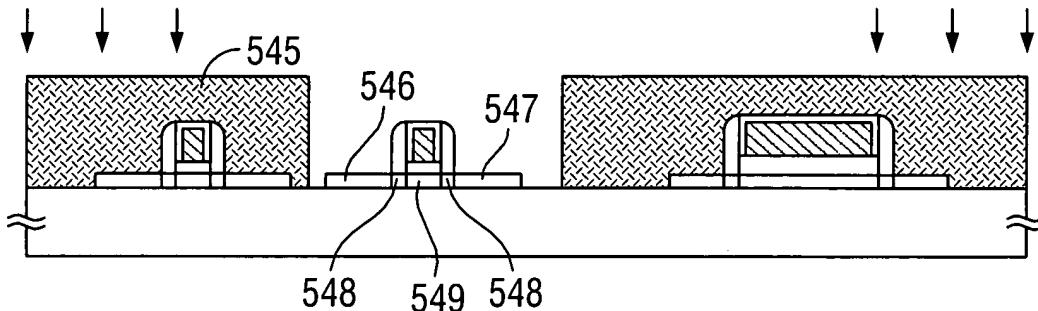


FIG. 7A

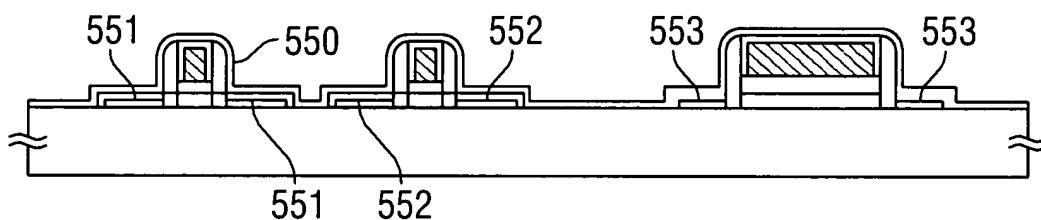


FIG. 7B

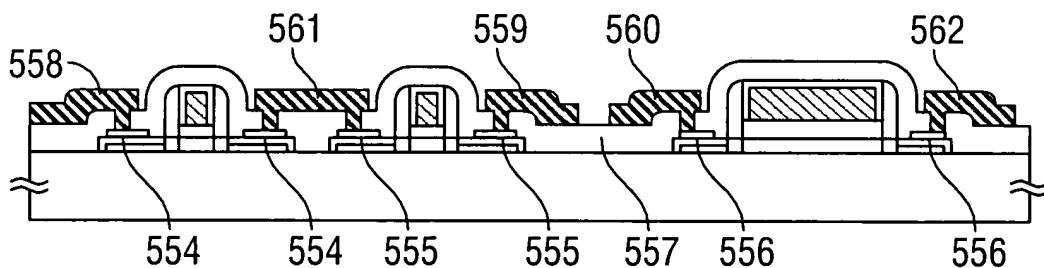
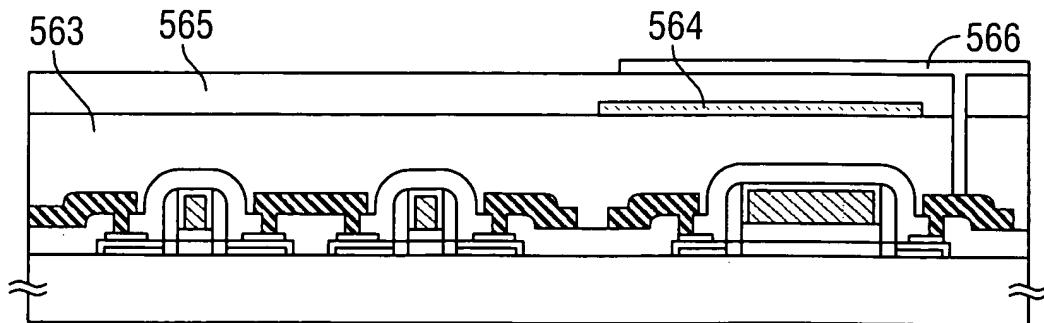


FIG. 7C



CMOS Circuit

Pixel TFT

FIG. 7D



FIG. 8

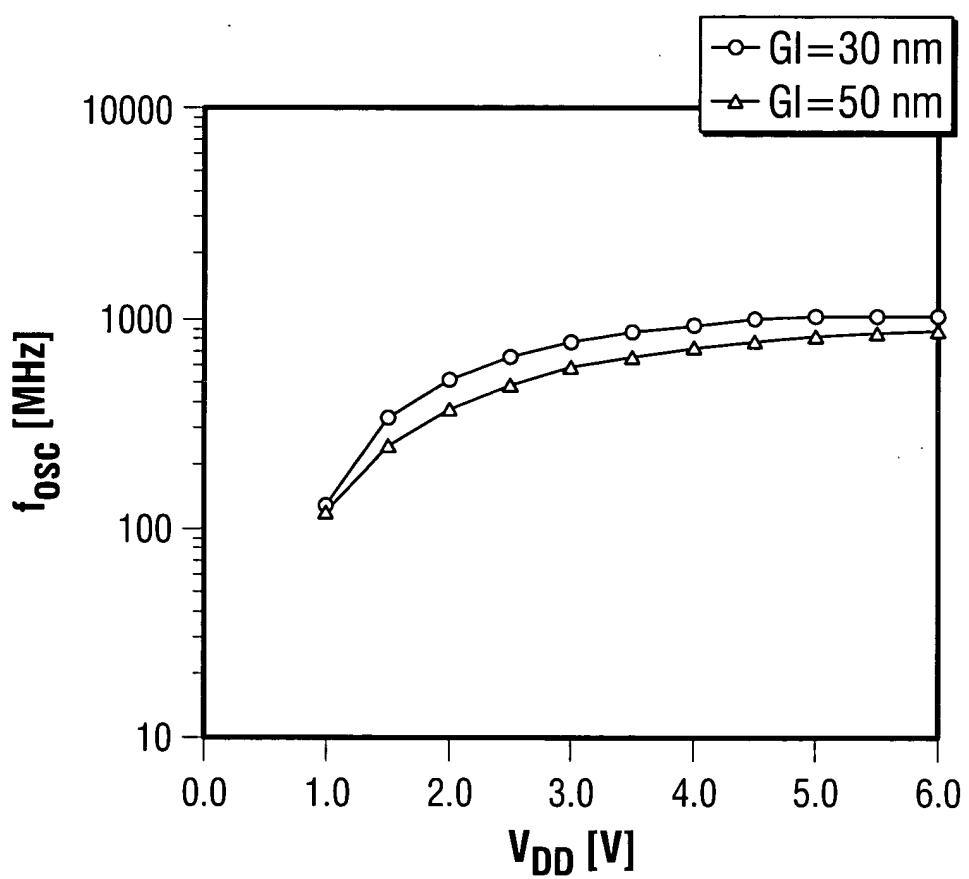


FIG. 9

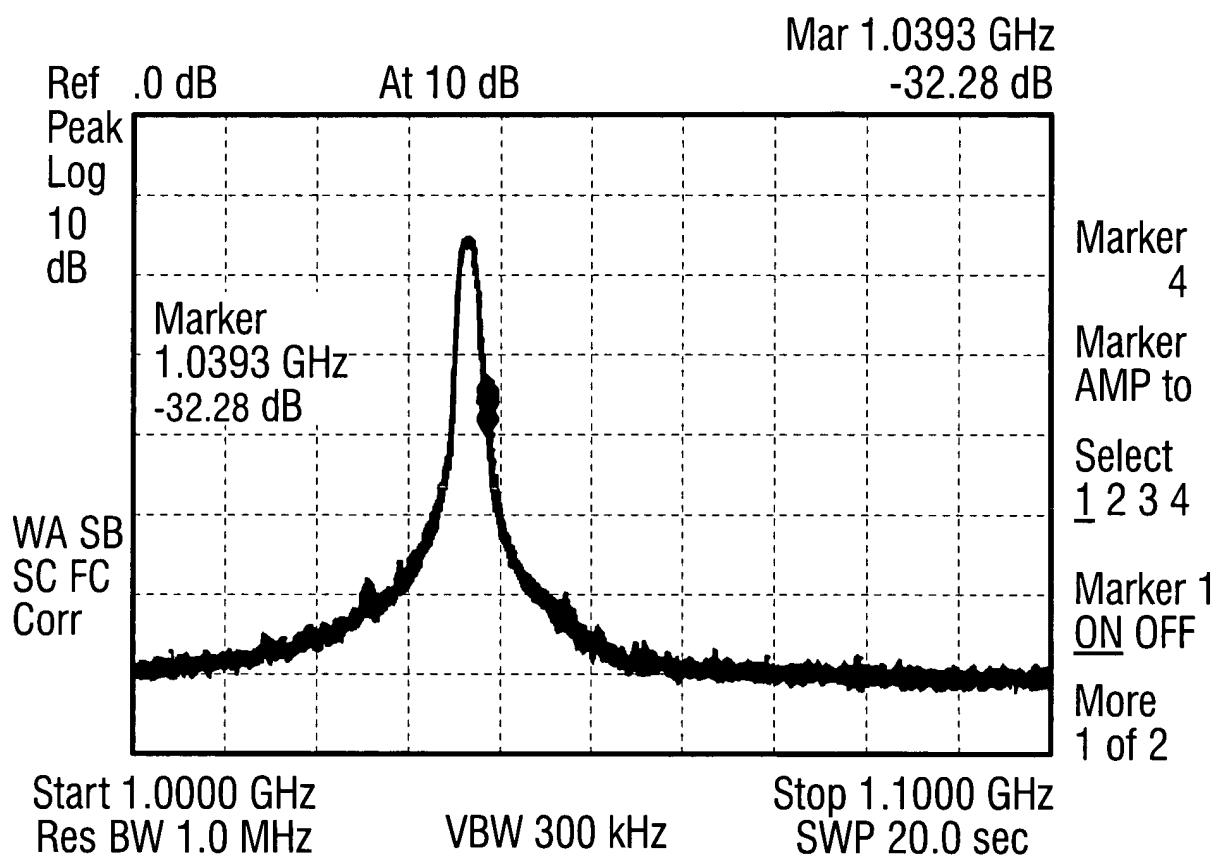


FIG. 10

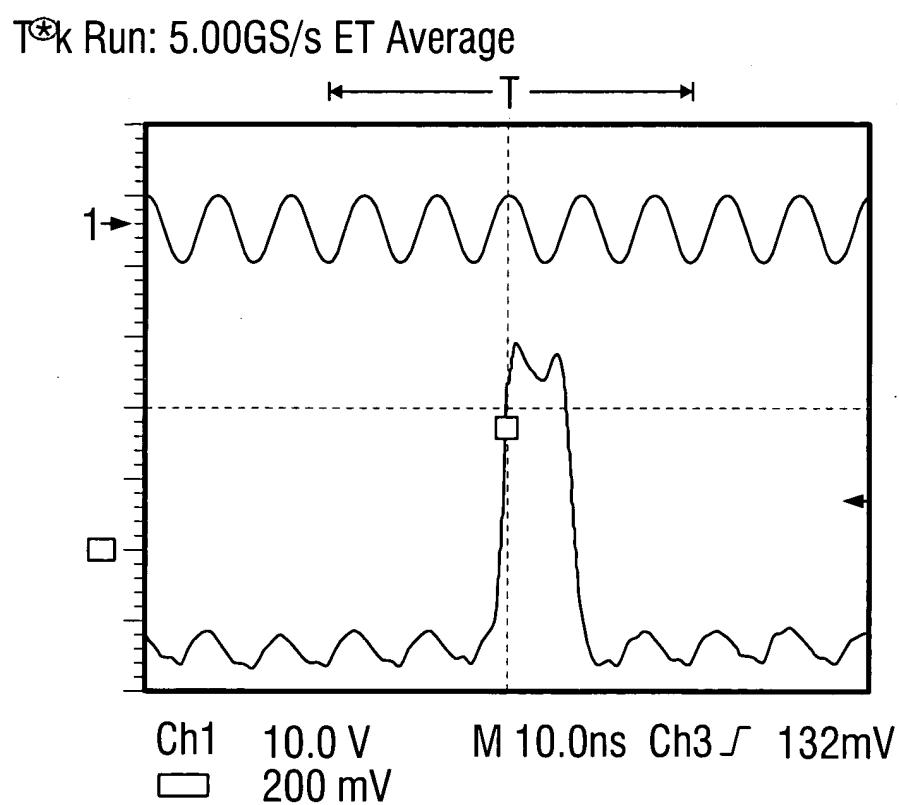


FIG. 11

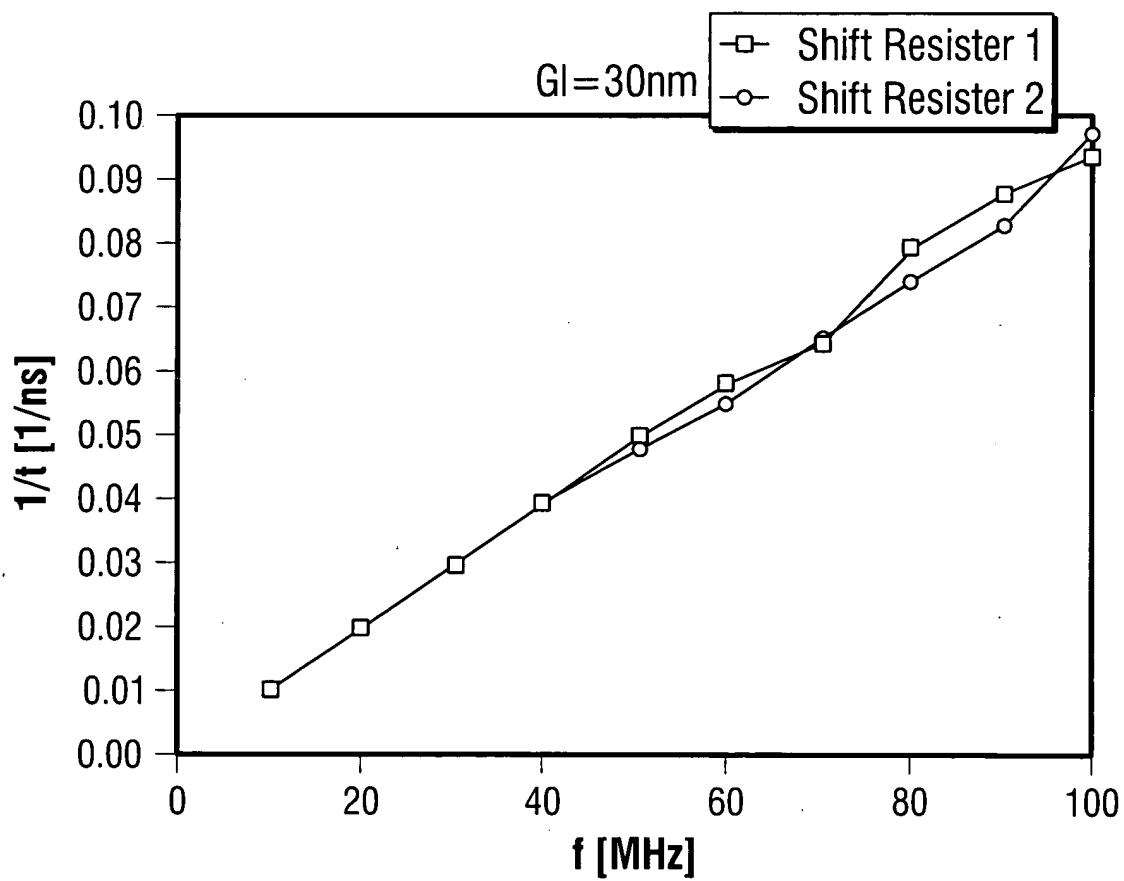
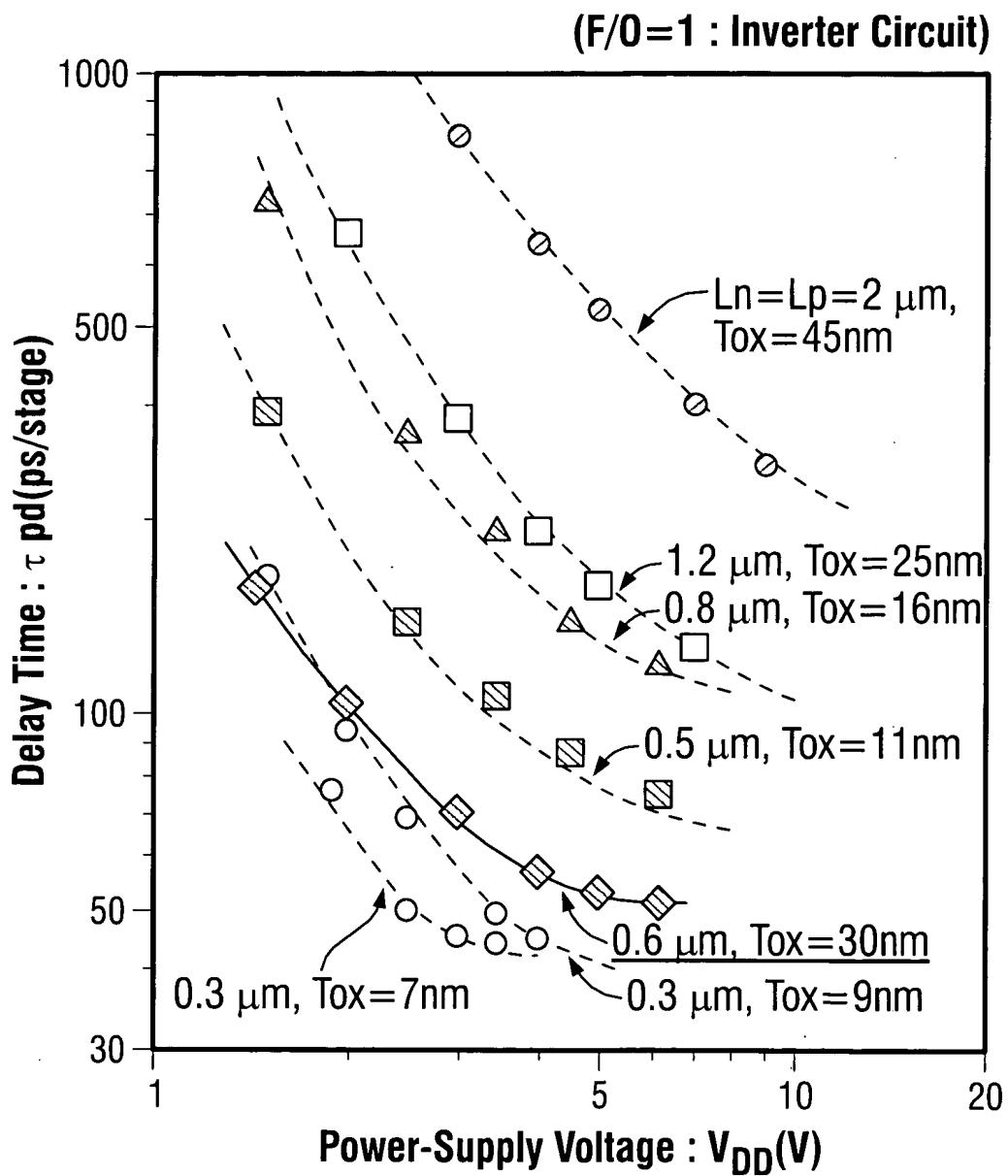


FIG. 12

**FIG. 13**

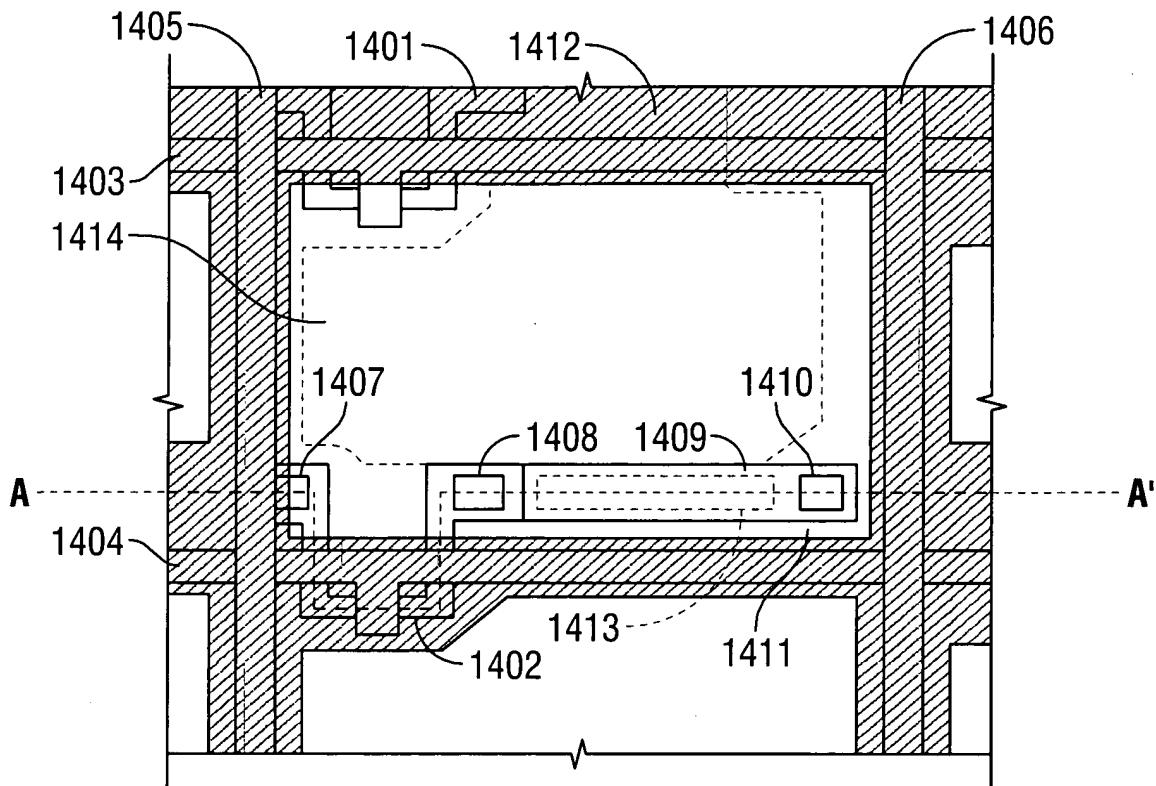


FIG. 14A

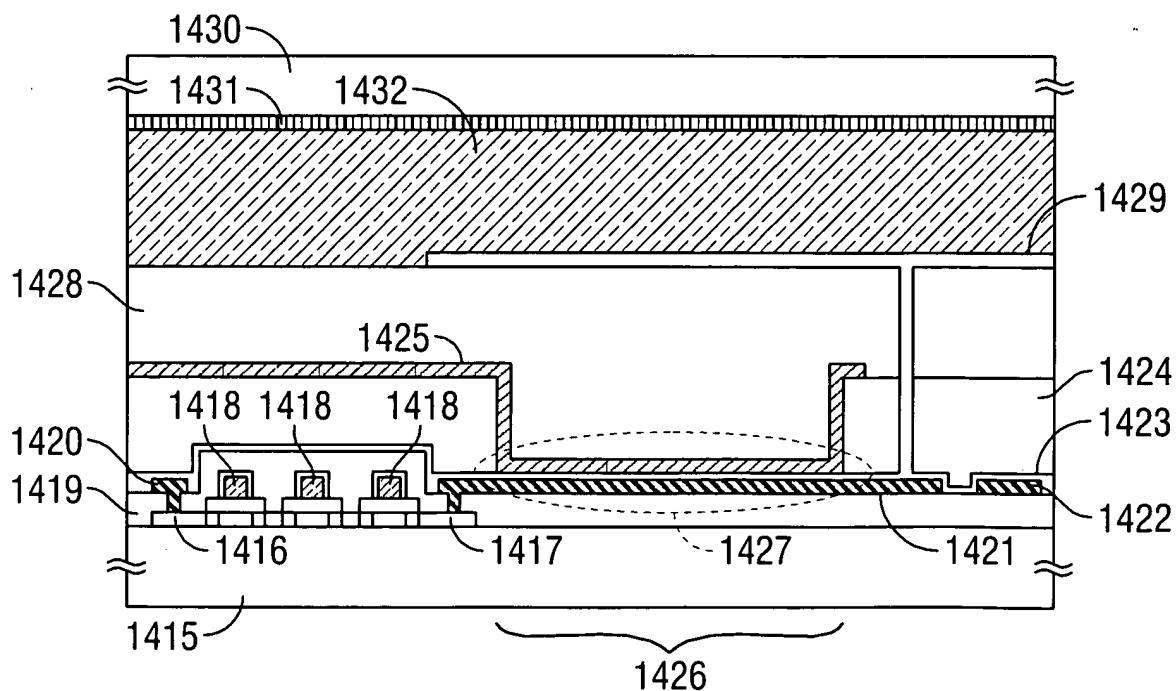
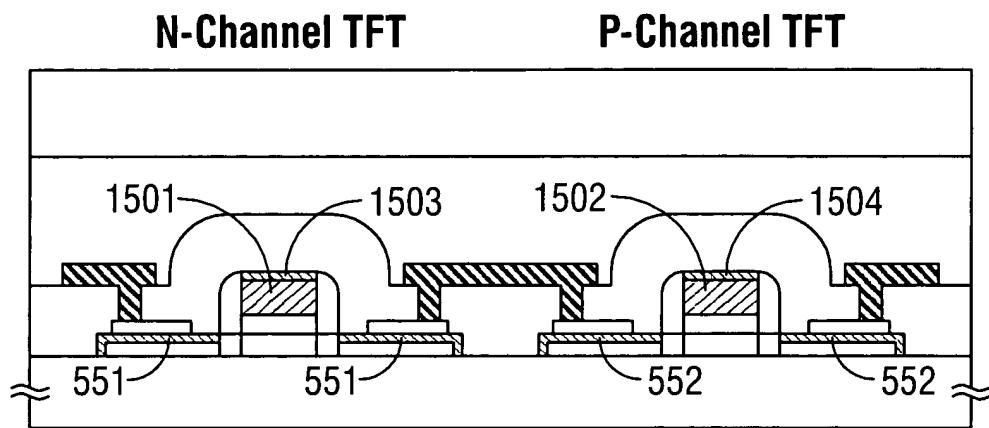
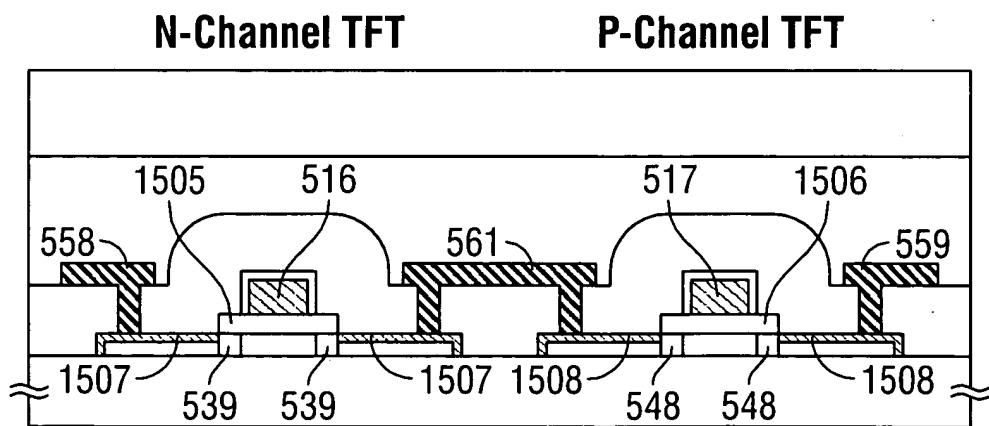


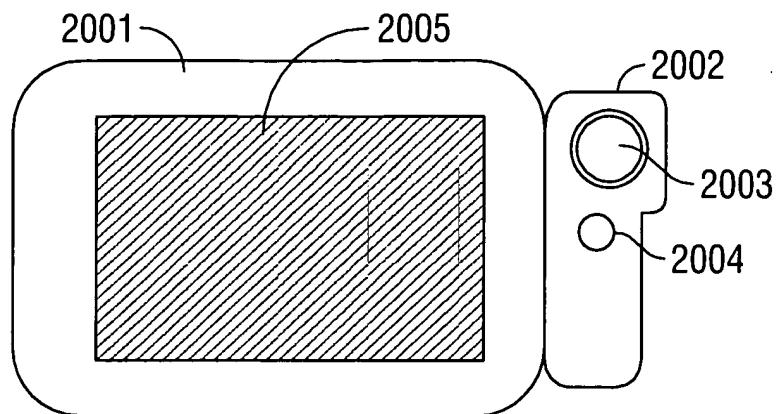
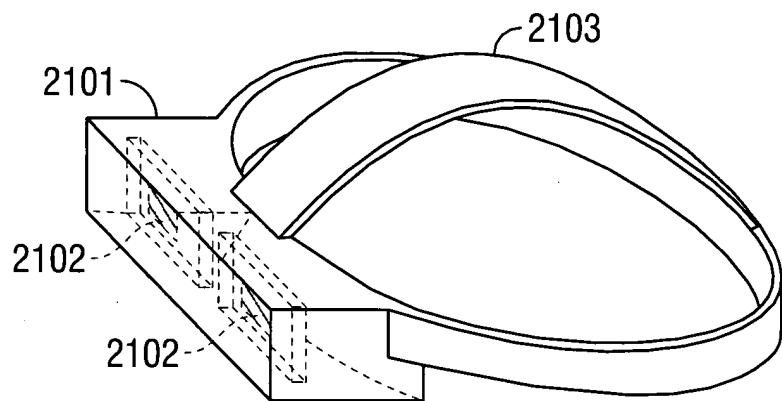
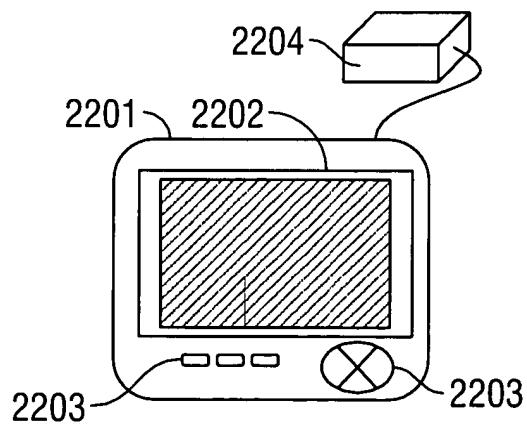
FIG. 14B

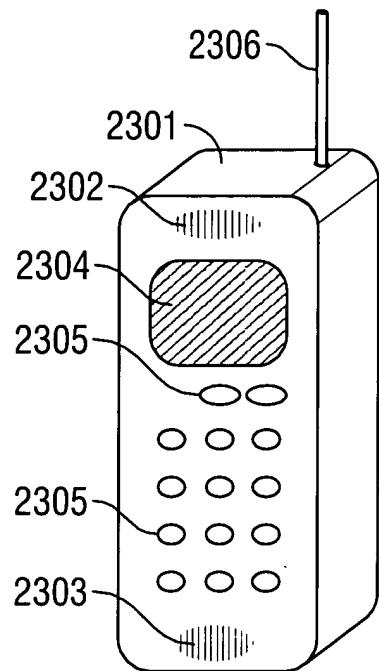


**FIG. 15A**

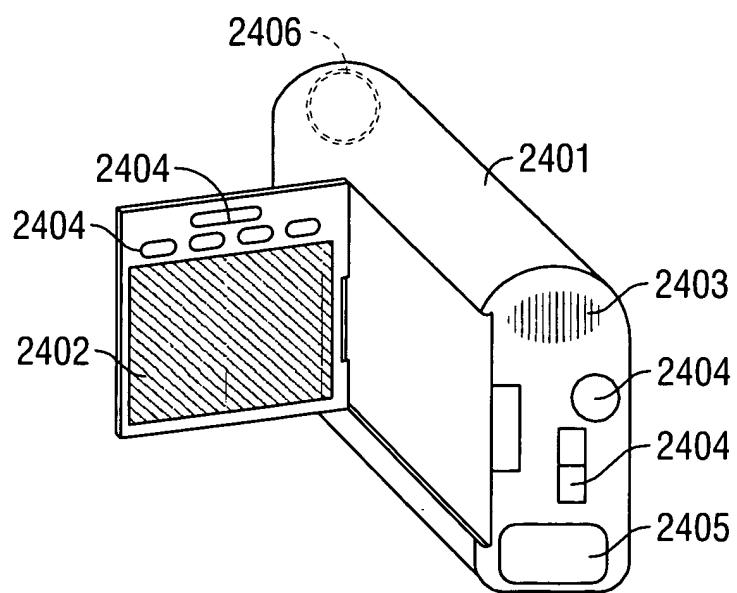


**FIG. 15B**

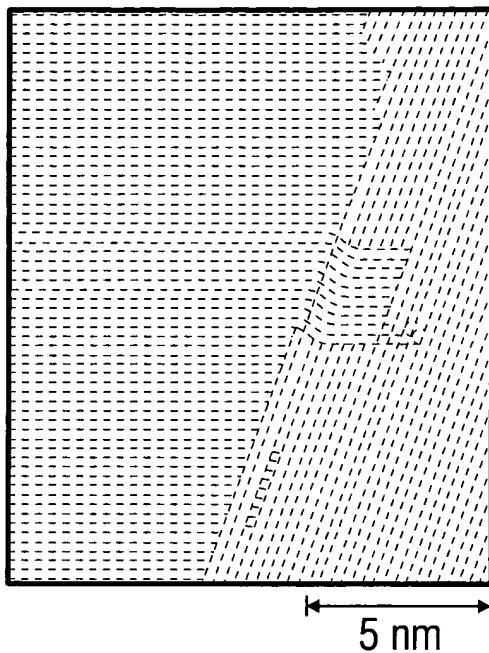
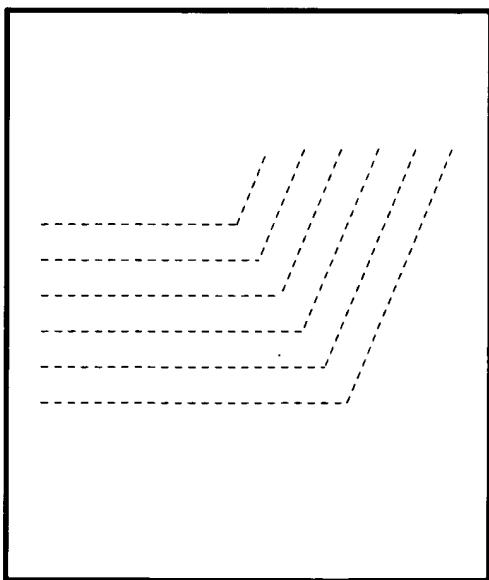
**FIG. 16A****FIG. 16B****FIG. 16C**

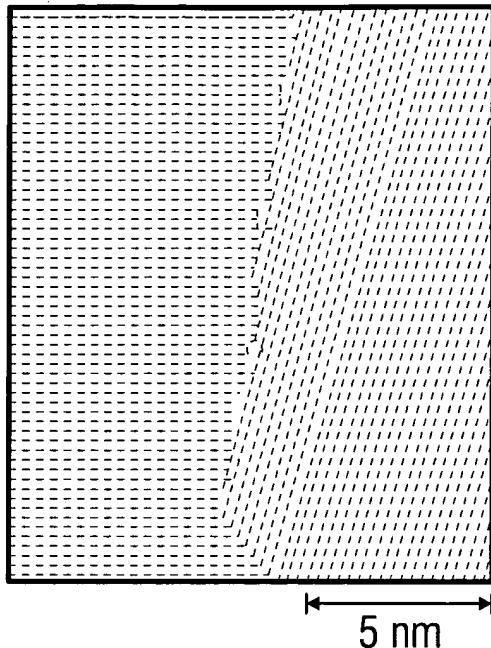


**FIG. 16D**

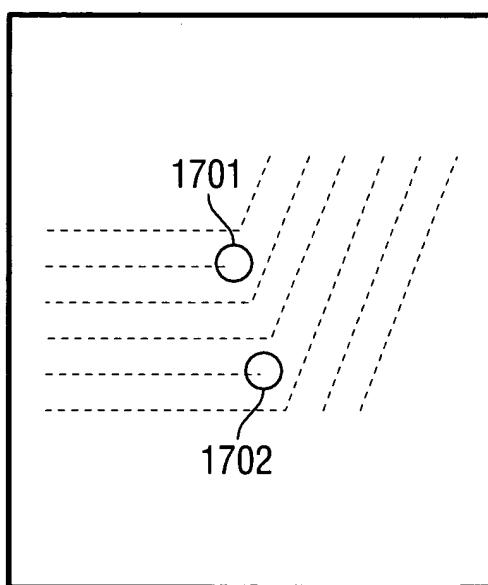


**FIG. 16E**

**FIG. 17A****FIG. 17B**



**FIG. 17C**



**FIG. 17D**

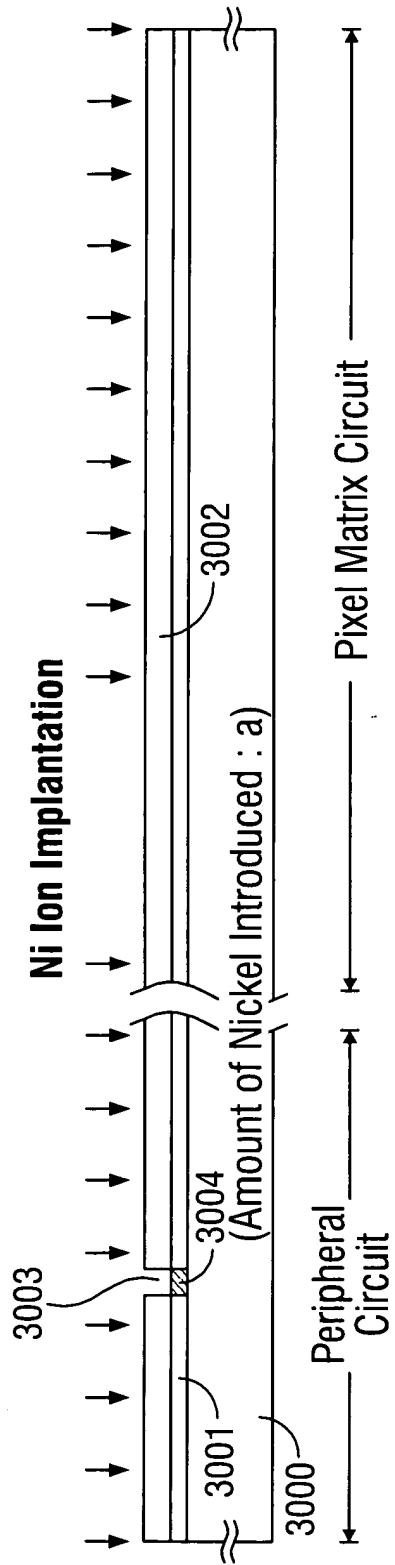


FIG. 18A

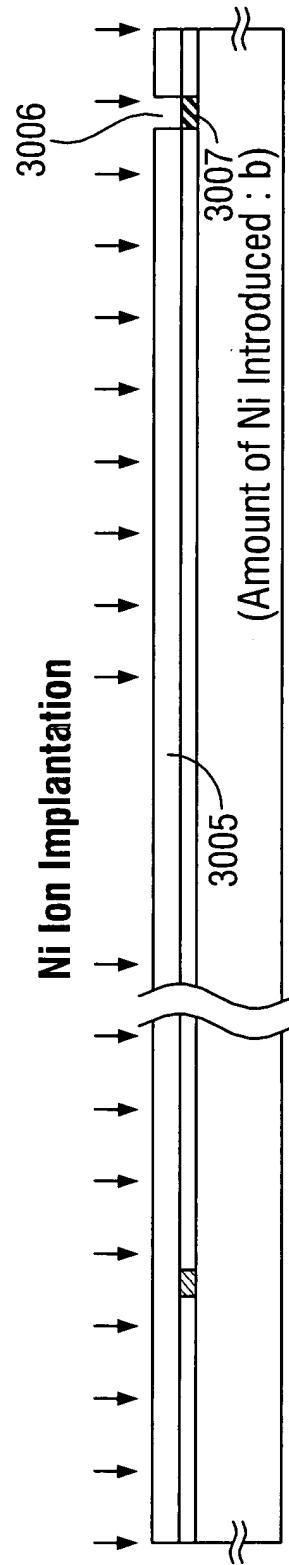


FIG. 18B

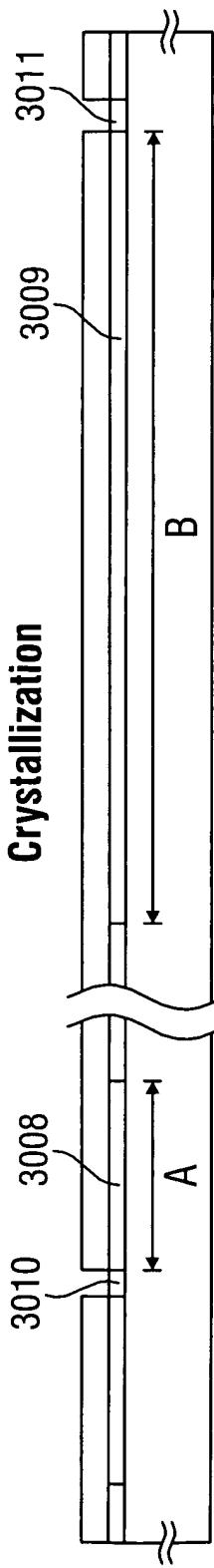


FIG. 18C

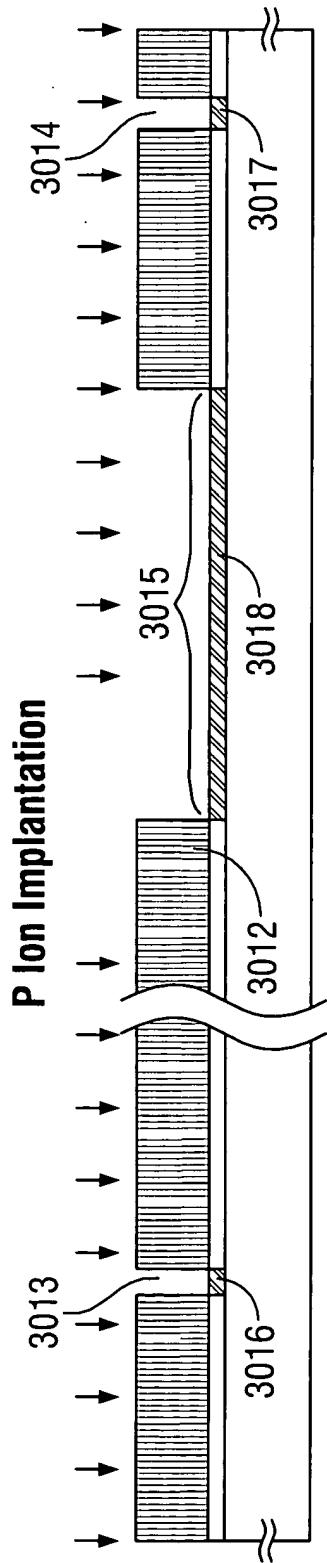


FIG. 19A

### Getting by Phosphorus Element

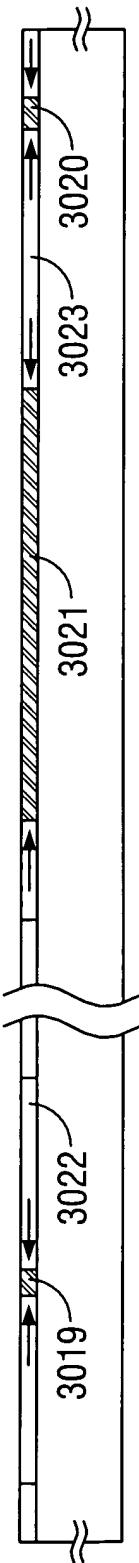


FIG. 19B

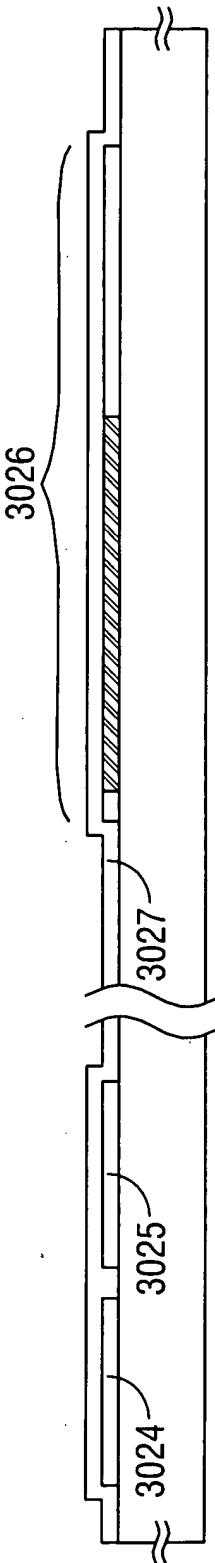


FIG. 19C

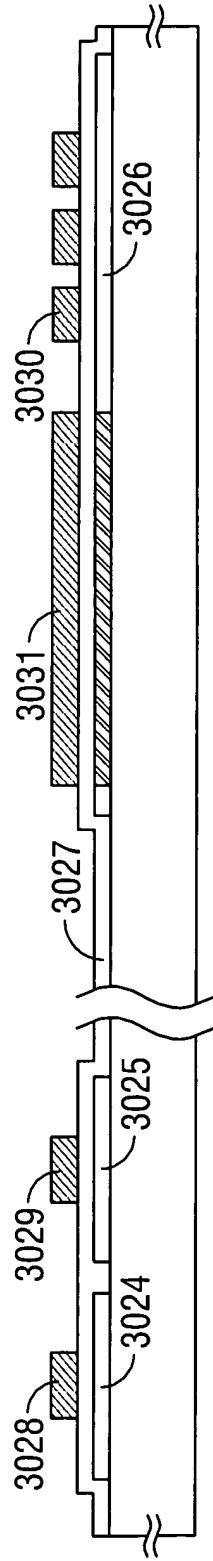


FIG. 20A

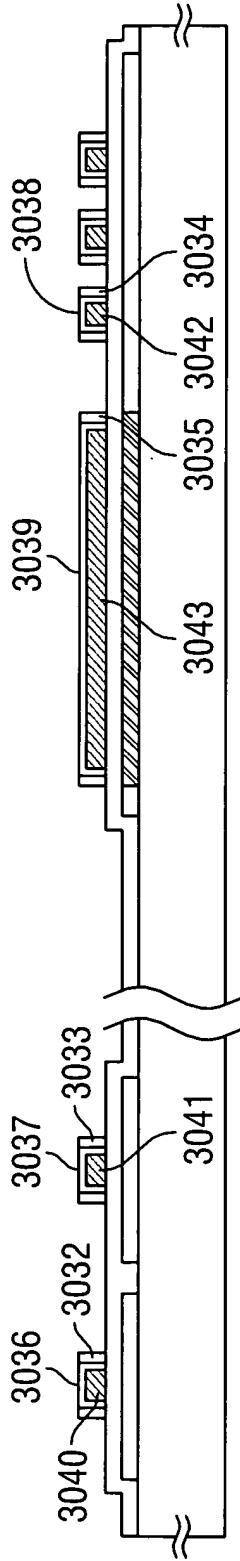


FIG. 20B

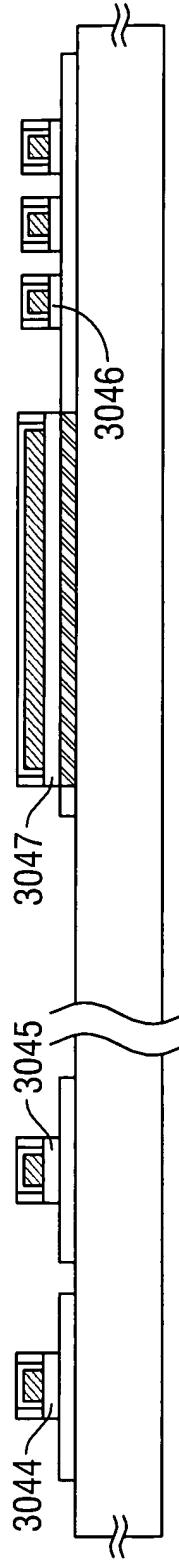


FIG. 20C

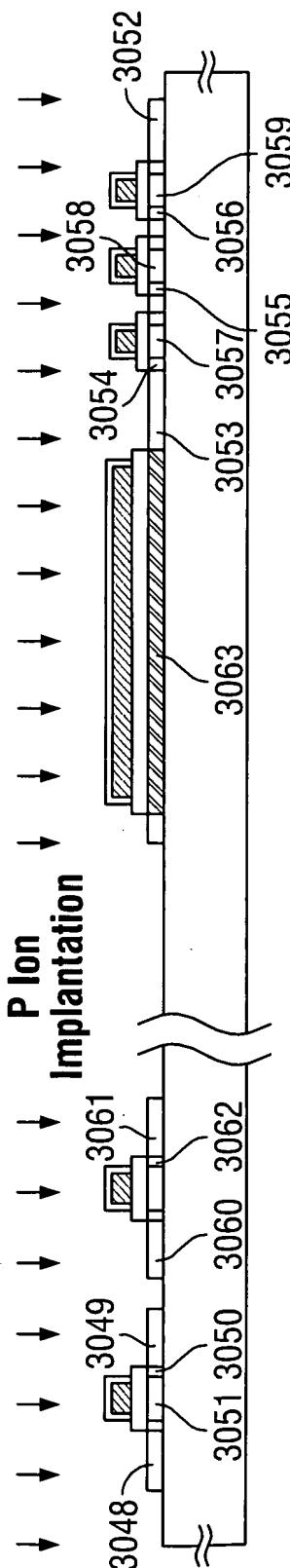
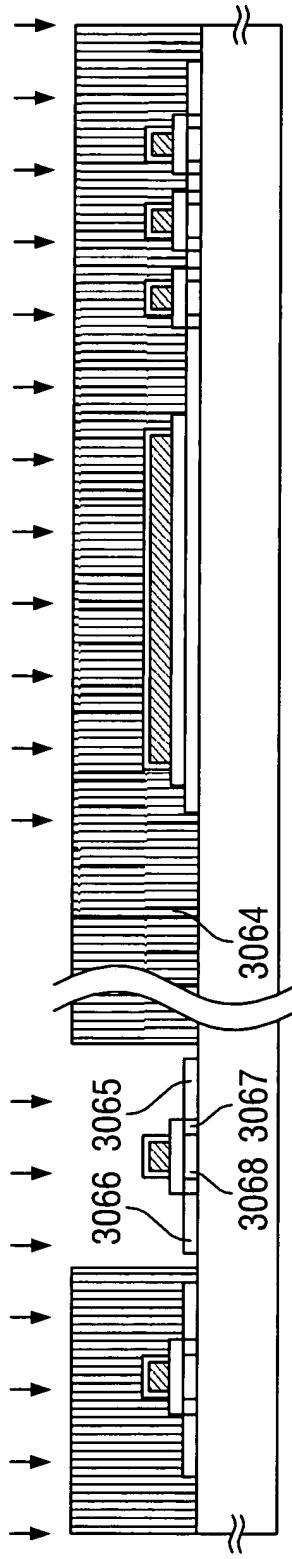
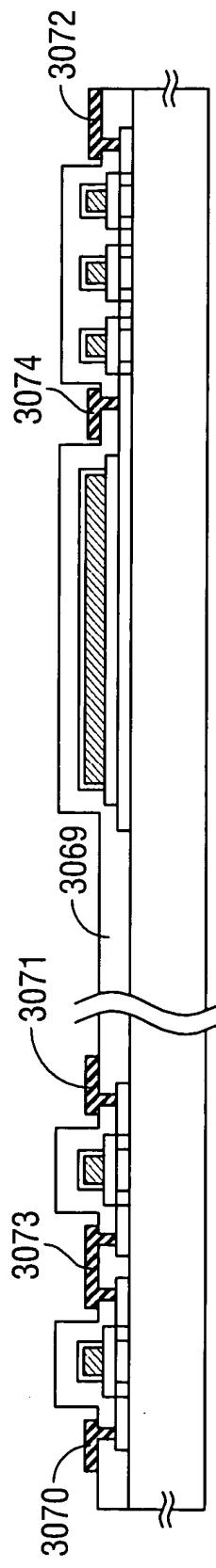
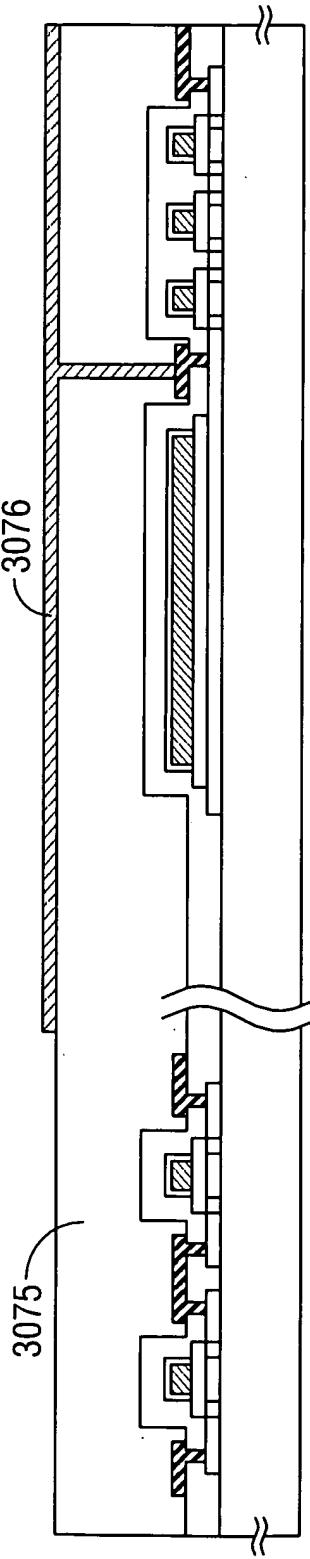


FIG. 20D

**B Ion Implantation****FIG. 21A****FIG. 21B****FIG. 21C**

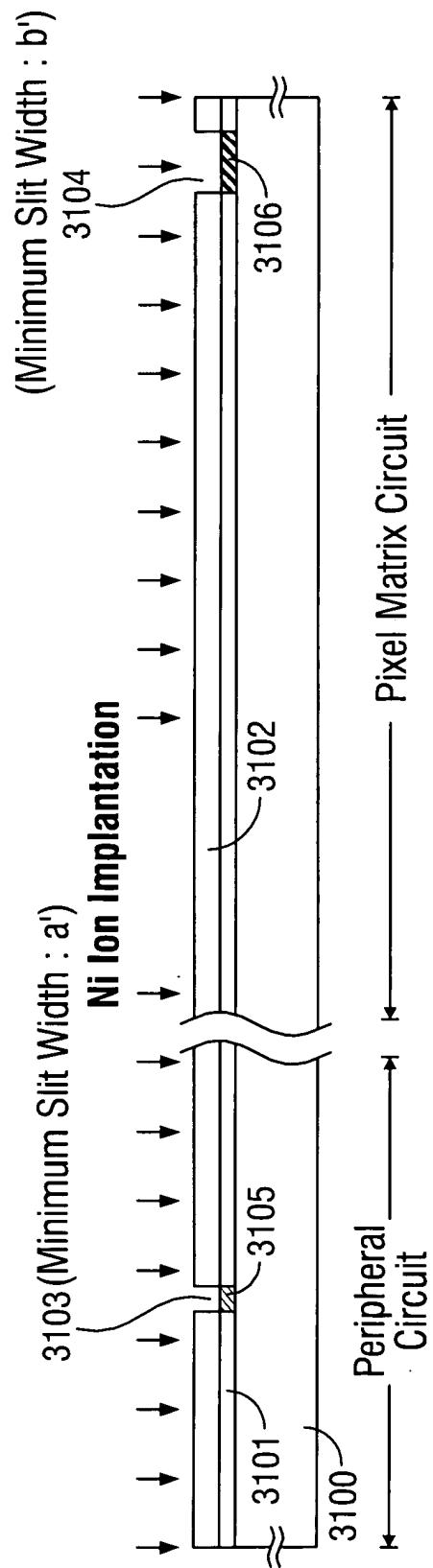


FIG. 22A

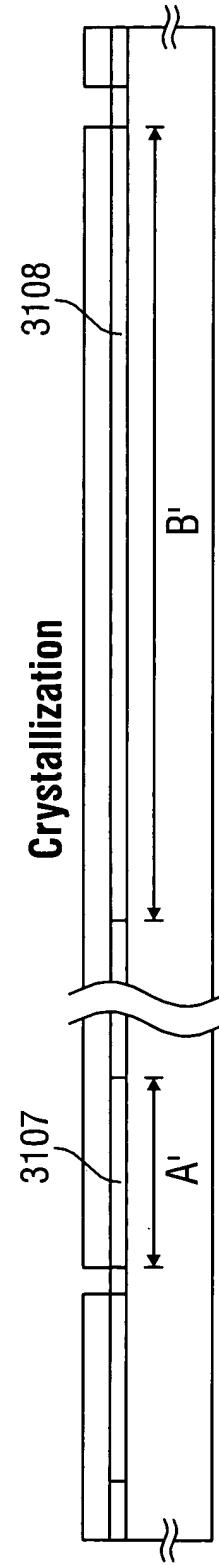


FIG. 22B

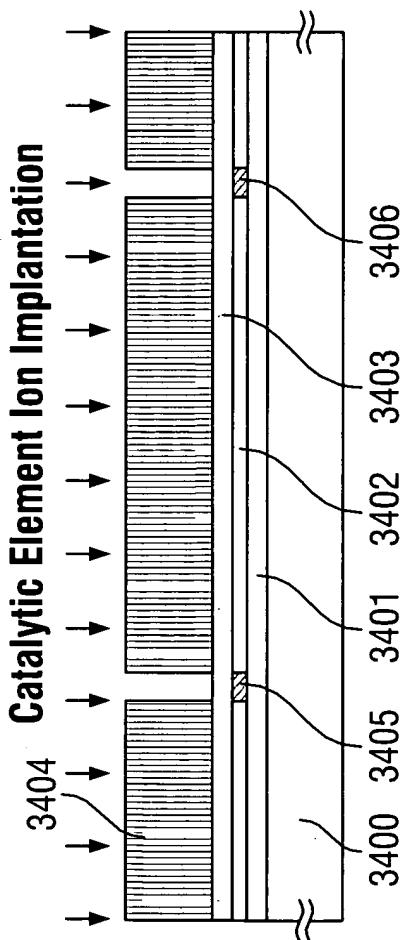


FIG. 23

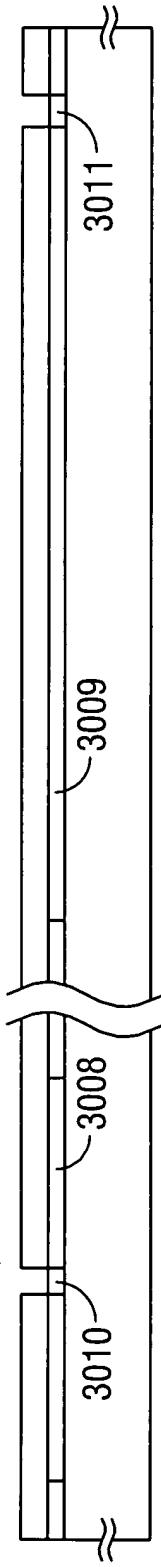


FIG. 24A

**Gettering by Halogen Element**

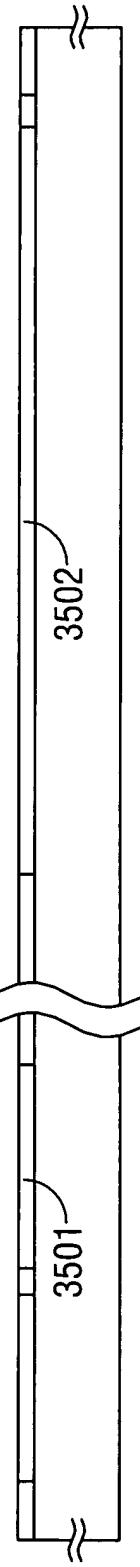


FIG. 24B

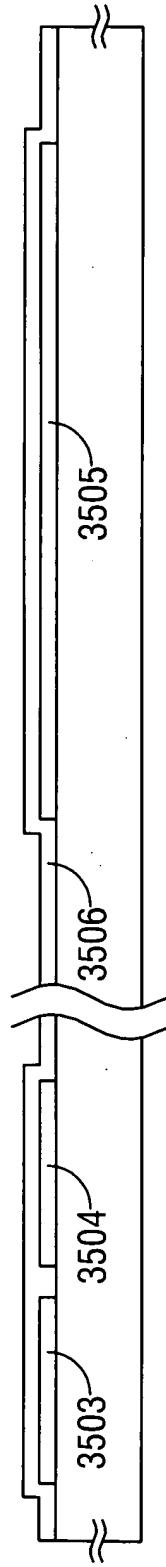
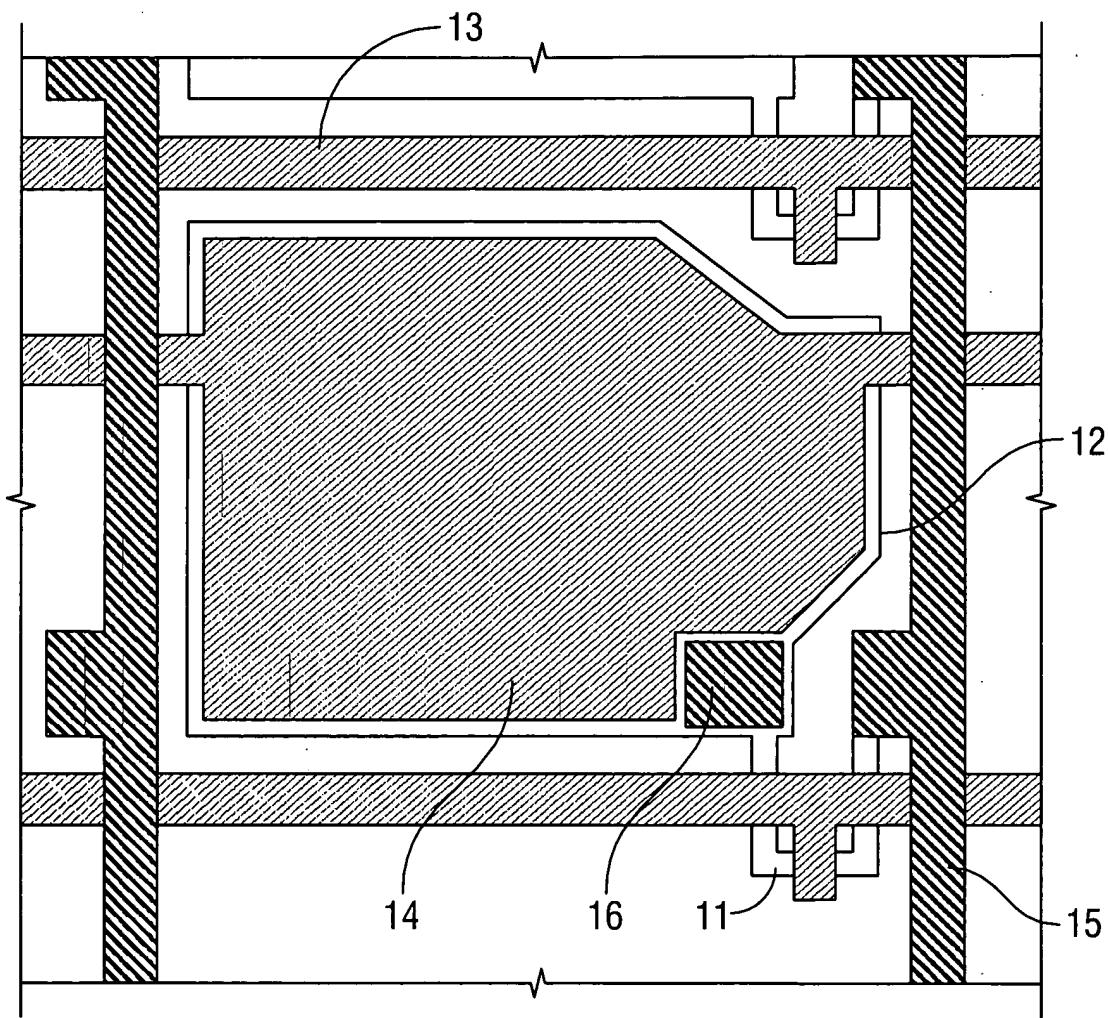


FIG. 24C

**FIG. 25**

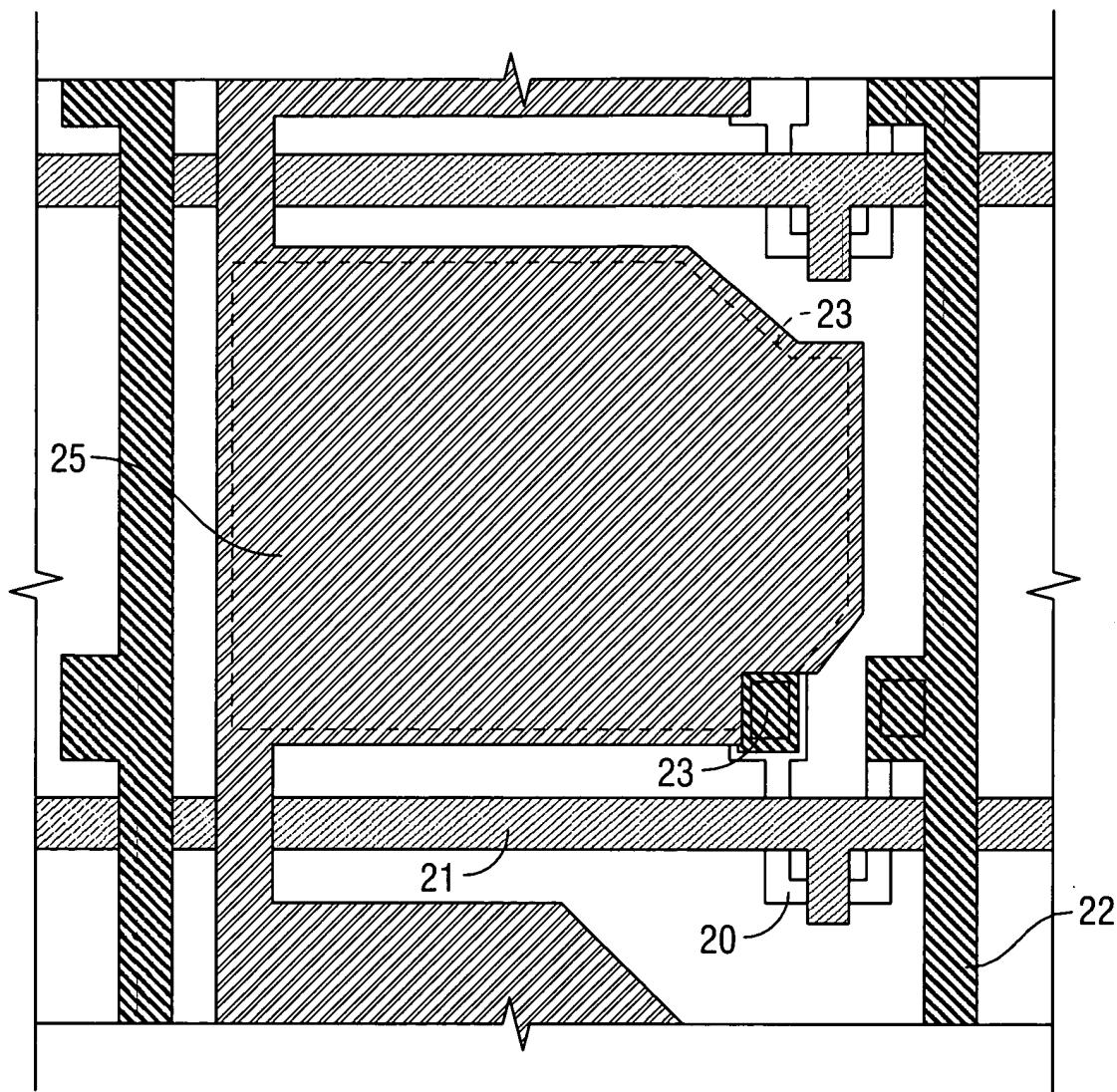


FIG. 26A

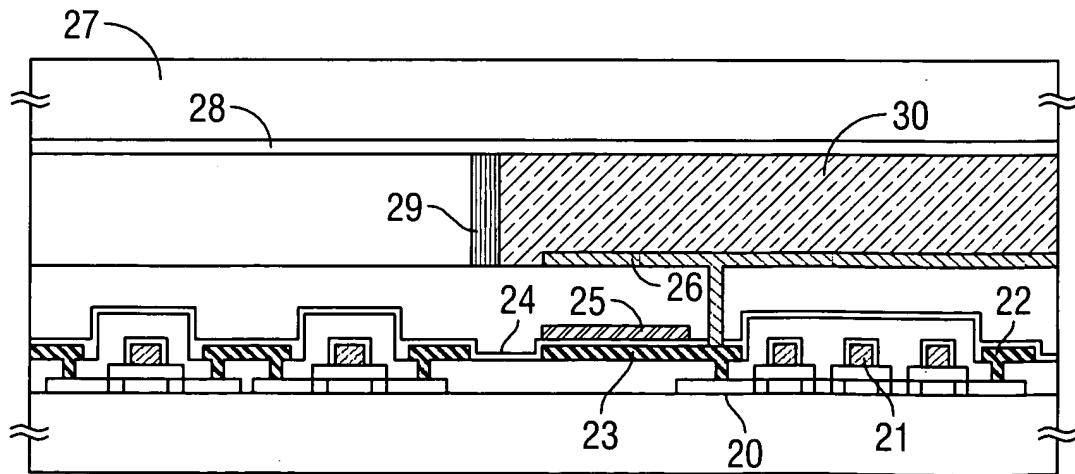


FIG. 26B